199—45.16(476) Appendix C – Levels 2 to 4: standard application form.

LEVELS 2 TO 4:
STANDARD INTERCONNECTION REQUEST APPLICATION FORM
(For Distributed Generation Facilities 10 MVA or less)

Interconnection Customer Contact Information

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____

Alternative Contact Information (if different from Customer Contact Information)

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____

Facility Address (if different from above): _____
City: _____ State: _____ Zip Code: _____
Utility Serving Facility Site: _____
Account Number of Facility Site (existing utility customers): _____
Inverter Manufacturer: _____ Model: _____

Equipment Contractor

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____

Electrical Contractor (if different from Equipment Contractor)

Name: _____
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Telephone (Daytime): _____ (Evening): _____
Facsimile Number: _____ E-Mail Address: _____
License Number: _____

Electric Service Information for Customer Facility where Generator will be Interconnected

Capacity: _____(Amps) Voltage: _____(Volts)
Type of Service: ____ Single Phase ____ Three Phase

If 3 Phase Transformer, Indicate Type:
Primary Winding ___ Wye ____ Delta
Secondary Winding ____ Wye ____ Delta

Transformer Size: _____ Impedance: _____

Intent of Generation

___ Offset Load (Unit will operate in parallel, but will not export power to utility)

___ Net Metering (Unit will operate in parallel and will export power to utility pursuant to Iowa Utilities Board rule 199 IAC 15.11(5) and the utility's net metering or net billing tariff)

___ Self-Use and Sales to the Utility (Unit will operate in parallel and may export and sell excess power to utility pursuant to Iowa Utilities Board rule 199 IAC 15.5 and the utility's tariff)

___ Wholesale Market Transaction (Unit will operate in parallel and participate in MISO or other wholesale power markets pursuant to separate requirements and agreements with MISO or other transmission providers, and applicable rules of the Federal Energy Regulatory Commission)

___ Back-up Generation (Units that temporarily operate in parallel with the electric distribution system for more than 100 milliseconds)

Note: Back-up units that do not operate in parallel for more than 100 milliseconds do not need an interconnection agreement.

Generator & Prime Mover Information

Energy Source (Hydro, Wind, Solar, Process Byproduct, Biomass, Oil, Natural Gas, Coal, etc.): _____

Energy Converter Type (Wind Turbine, Photovoltaic Cell, Fuel Cell, Steam Turbine, etc.):
_____

Generator Size: _____ kW or _____ kVA Number of Units: _____

Total Capacity: _____ kW or _____ kVA

Generator Type (Check one):
___ Induction ___ Inverter ___ Synchronous ___ Other: _____

Requested Procedure Under Which to Evaluate Interconnection Request

Please indicate below which review procedure applies to the interconnection request. The review procedure used is subject to confirmation by the utility.

___ Level 2 – Lab-certified interconnection equipment with an aggregate electric nameplate capacity less than or equal to 2 MVA. Lab-certified is defined in Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45.1). (Application fee is $100 plus $1.00 per kVA.)

___ Level 3 – Distributed generation facility does not export power. Nameplate capacity rating is less than or equal to 50 kVA if connecting to area network or less than or equal to 10 MVA if connecting to a radial distribution feeder. (Application fee amount is $500 plus $2.00 per kVA.)

___ Level 4 – Nameplate capacity rating is less than or equal to 10 MVA and the distributed generation facility does not qualify for a Level 1, Level 2, or Level 3 review, or the distributed generation facility has been reviewed but not approved under a Level 1, Level 2, or Level 3 review. (Application fee amount is $1,000 plus $2.00 per kVA, to be applied toward any subsequent studies related to this application.)

Note: Descriptions for interconnection review categories do not list all criteria that must be satisfied. For a complete list of criteria, please refer to Iowa Utilities Board Chapter 45 rules on Electric Interconnection of Distributed Generation Facilities (199 IAC 45).

Distributed Generation Facility Information:
Commissioning Test Date: _____

List interconnection components/systems to be used in the distributed generation facility that are lab-certified.

Component/System NRTL Providing Label & Listing
1. _____
2. _____
3. _____
4. _____
5. _____
Please provide copies of manufacturer brochures or technical specifications.

Energy Production Equipment/Inverter Information:

___ Synchronous ___ Induction ___ Inverter ___ Other: _____
Rating: _____ kW Rating: _____ kVA
Rated Voltage: _____ Volts
Rated Current: _____Amps
System Type Tested (Total System): ___ Yes ___ No; attach product literature

For Synchronous Machines:

Note: Contact utility to determine if all the information requested in this section is required for the proposed distributed generation facility.

Manufacturer: _____
Model No.: _____ Version No.: _____
Submit copies of the Saturation Curve and the Vee Curve
___ Salient ____ Non-Salient
Torque: _____ lb-ft Rated RPM: _____ Field Amperes: _____ at rated generator voltage and current and _____% PF over-excited
Type of Exciter: _____
Output Power of Exciter: _____
Type of Voltage Regulator: _____
Locked Rotor Current: _____ Amps Synchronous Speed: _____RPM
Winding Connection: _____ Min. Operating Freq./Time: _____
Generator Connection: ____ Delta ____ Wye ____ Wye Grounded
Direct-axis Synchronous Reactance: (Xd) _____ ohms
Direct-axis Transient Reactance: (X'd) _____ ohms
Direct-axis Sub-transient Reactance: (X"d) _____ ohms
Negative Sequence Reactance: _____ ohms
Zero Sequence Reactance: _____ ohms
Neutral Impedance or Grounding Resister (if any): _____ ohms

For Induction Machines:

Note: Contact utility to determine if all the information requested in this section is required for the proposed distributed generation facility.

Manufacturer: _____
Model No.: _____ Version No.: _____
Locked Rotor Current: _____ Amps
Rotor Resistance (Rr):_____ ohms Exciting Current: ____ Amps
Rotor Reactance (Xr):_____ ohms Reactive Power Required: _____
Magnetizing Reactance (Xm): _____ ohms _____VARs (No Load)
Stator Resistance (Rs):_____ ohms _____VARs (Full Load)
Stator Reactance (Xs):_____ ohms
Short Circuit Reactance (X"d):_____ ohms
Phases: _____ Single ____ Three-Phase
Frame Size: _____ Design Letter: ___ Temp. Rise: _____°C.

Reverse Power Relay Information (Level 3 Review Only):

Manufacturer: _____
Relay Type: _____ Model Number: _____
Reverse Power Setting: _____
Reverse Power Time Delay (if any): _____

Additional Information For Inverter-Based Facilities:

Inverter Information:

Manufacturer: _____ Model: _____
Type: ___ Forced Commutated ____ Line Commutated
Rated Output: _____ Watts _____ Volts
Efficiency: _____% Power Factor: _____%
Inverter UL1741 Listed: ____ Yes ___ No

DC Source/Prime Mover:

Rating: _____ kW Rating: _____ kVA
Rated Voltage: _____Volts
Open Circuit Voltage (if applicable): _____Volts
Rated Current: _____Amps
Short Circuit Current (if applicable): _____Amps

Other Facility Information:

One-Line Diagram – A basic drawing of an electric circuit in which one or more conductors are represented by a single line and each electrical device and major component of the installation, from the generator to the point of interconnection, are noted by symbols.

One-Line Diagram attached: ___ Yes

Plot Plan – A map showing the distributed generation facility's location in relation to streets, alleys, or other geographic markers.

Plot Plan attached: ____ Yes

Customer Signature:

I hereby certify that all of the information provided in this Interconnection Request Application Form is true.

Applicant Signature: _____
Title: _____ Date: _____

An application fee is required before the application can be processed. Please verify that the appropriate fee is included with the application:

Amount: _____

Utility Acknowledgement:

Receipt of the application fee is acknowledged and this interconnection request is complete.

Utility Signature: _____ Date: _____
Printed Name: _____ Title: _____

[**ARC 8859B**, IAB 6/16/10, effective 7/21/10]